

ABSTRACT OF THE DISCLOSURE

An on-board generation system of a vehicle includes an on-board combustor mounted to a vehicle independently from an engine thereof, a high-temperature system line for circulating a thermal medium for receiving heat caused through a combustion process in the combustor, a low-temperature system line for circulating a medium on a low-temperature side which is subjected to heat exchanging with the thermal medium, and an electric generator, arranged between the high-temperature system line and the low-temperature system line, for recovering the thermal energy of the thermal medium as electric energy, in which the electric power generated by the electric generator is supplied to a power source including either one of an on-board battery and a power supply element for driving a vehicle equipment.